

Date: September 22, 2004 Planning Commission Meeting

Item No.

MILPITAS PLANNING COMMISSION AGENDA REPORT

Category: Public Hearings Report Prepared by: Troy Fujimoto Yes: ____/ ___ Public Hearing: No: Notices Mailed On: 9/10/04 Published On: 9/9/04 Posted On: 9/10/04

TITLE:

USE PERMIT NO. UP2004-18 & S-ZONE AMENDMENT

APPROVAL (SA2004-71)

Proposal:

Locate a telecommunication antenna facility, inside the existing Great Mall

tower sign at the Great Mall shopping center

Location:

1100 S. Main Street

APN:

086-24-033

RECOMMENDATION: Approval with Conditions

Applicant:

TetraTech for Nextel of California, 1255 Treat Boulevard, Suite 220,

Walnut Creek, CA 94596, attn: Evan Shepherd

Property Owner:

Great Mall, 447 Great Mall Drive, Milpitas, CA 95035

Previous Action(s):

EIA, use permits, and S-Zone Approvals

General Plan Designation: General Commercial

Present Zoning:

C2-S, General Commercial with an "S" overlay

Existing Land Use:

Regional Shopping Center

Agenda Sent To:

Applicant & Owner, as noted above

Attachments:

Plans

Project Description/Letter from Applicant, dated July, 29, 2004

Photo Simulations

Telecommunications Questionnaire

Power Density Report

FCC License Build-out map

Alternative site analysis

PJ#2383



BACKGROUND

From 1955 to 1983, the Ford Motor Company operated an auto assembly plant on the site. In 1993, the City approved a General Plan Amendment to re-designate the site from Manufacturing to General Commercial land use. In that same year the Planning Commission approved the conversion of the auto assembly plant into a value-oriented regional shopping mall, which opened in 1994.

In 1999, the City approved an "S" Zone application for a tower (never built), an "S" Zone Amendment for building modifications and a new sign program, as well as Use Permits for a cinema, arcade, bar, restaurants, parking reduction, billiards and a tower bar and restaurant (the latter never built).

Site Description

The Great Mall is located on approximately 103 acres, is located east of Main Street, south of Curtis Avenue, west of the Union Pacific railroad tracks, and north of Great Mall Parkway. At the northeast section of the mall is a multi-deck parking structure. The mall has building entrances on all four sides. Freestanding buildings in the mall envelope include the Century Theaters and the Outback Restaurant.

Neighboring land uses include high-density residential and industrial uses to the north and west, industrial uses and office parks to the south and east. Additionally, there are various land uses on the outparcels of the mall, including a hotel, a school (Heald College), and office (Research and Development) uses to the south; retail, a gas station, a VTA park and ride facility to the west, and residential uses to the north.

THE APPLICATION/PROJECT DESCRIPTION

The application is filed pursuant to Title XI, Chapter 10, Section 57.02-15.1 (Conditional Uses, Additional Uses Permitted – Wireless Communication Facility) and Section 10-42 ("S" Zone Combining District). The applicant is requesting a use permit to locate twelve (12) telecommunication antennas inside of the existing 93-foot tall elevator tower and will have metal exterior paneling replaced with transparent panels that will be painted to match the existing colors on the tower. In addition, there will be a 300 square foot area for the associated electronic equipment that will be located inside an existing roof top equipment enclosure.

Site Layout: The facility will be located in the elevator tower that is located in the northeastern portion of the mall building. The associated equipment will be located to the southwest of the tower. The antennas and equipment will be located on top of the roof, thus, limiting access to the facility.

ISSUES

Use Permit Findings

Any approval of a Use Permit or Use Permit Amendment, requires that the Planning Commission make the following findings:

- 1. The proposed use is consistent with the Milpitas Zoning Ordinance.
- 2. The proposed use is consistent with the Milpitas General Plan.
- 3. The proposed use, at the proposed location will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety, and general welfare.

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The following report explains how the proposed project, as conditioned, is able to satisfy these findings.

Conformance with the Zoning Ordinance

The project as proposed conforms to the Zoning Ordinance. The Zoning Ordinance, Section 57 (57.01 (b), 57.02-15, and 57.03-5) allows for the proposed use to be approved in this district if it is deemed essential or desirable to the public, suitable to the site, and not detrimental or injurious to properties in the vicinity. The proposed site of the antennas and equipment is inside of an existing elevator tower and once work is completed will not be visible from any views. Since this is the elevator tower already exists and the facility will not modify it, it will not degrade the site and will continue to be suitable to the site. Additionally the associated electronic equipment/cabinets will be in an existing building/enclosure and will also not be visible from any views. In addition, the facility will provide enhanced coverage for Nextel cell phone users and will prevent dropped calls.

"S" Zone Approval/Visual Impacts

In order to approve the "S" Zone application, the Planning Commission must find that the layout of the site and design of the proposed structures are compatible and aesthetically harmonious with surrounding development. While the applicant is proposing a stealth design, there is a concern that when the transparent panels are replaced and painted over, that the colors may not match as the new paint will not match the existing paint. To minimize this visual impact, *staff recommends*, the entire bands of color be repainted wherever the panels are proposed to be placed. Thus, for the reasons mentioned in the previous section and with the condition of approval, this project is compatible and aesthetically harmonious with the surrounding development given the stealth design of the antennas and equipment inside of existing structures.

Conformance with the General Plan

The project is consistent with the General Plan. By providing for alternate telecommunications services for the conduct of commercial and personal business without creating aesthetic disharmony, it promotes a highly amenable community environment, in keeping with Guiding Principle 2.a-G-1.

It is also consistent with Implementing Policy 2.a-I-3. The project is encouraging economic pursuits that will strengthen and promote development through stability and balance. The project will enable Nextel to provide improved coverage, which will help to promote their service within the City, thus, potentially improving the attraction of the city while bolstering the telecommunication industry.

Neighborhood Compatibility

The existing neighborhood is commercial with industrial uses to the east. The nearest residential uses is approximately 800 feet away to the north. A telecommunication facility within a commercial and industrial area is appropriate to the area. With the stealth design, it is appropriate for the shopping center and will not modify the appearance of the building/tower.

Radio Frequency Emissions:

Federal law preserves the City's authority to regulate the placement, construction, and modification of personal wireless service facilities (47 U.S.C. 332((c)(7)(A).) However, federal law does impose a limitation on this authority in the area of radio frequency (RF) emissions. The City is prohibited by federal law from regulating the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of RF emissions to the extent the facilities comply

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with the Federal Communications Commission's (FCC) regulations concerning such emissions. (47 U.S.C. 332(c)(7)(B)(iv).

The FCC has established guidelines that place limits on human exposure to RF fields generated by personal wireless service facilities. These guidelines have been endorsed by the U.S. Environmental Protection Agency and the Food and Drug Administration. The FCC requires all personal wireless facilities to comply with these guidelines.

The City, however, may still verify that applicants are in compliance with the FCC's guidelines. Therefore, the City requires applicants applying for use approval for any telecommunications device to submit a power density report. This report is reviewed by the City's Telecommunications Advisory Commission to ensure compliance with the FCC's guidelines. To the extent that an applicant's facilities, as proposed, are not in compliance with the FCC's guidelines, the City may require the applicant to make appropriate modifications to the facilities to ensure compliance.

Telecommunications Commission Review

The City of Milpitas Telecommunication Commission reviewed this project on August 16, 2004. Comments and concerns raised by the Telecommunication Commission were in regards to providing identification of the facility for Fire Department personal. The Telecommunication Commission recommends approval of the proposal to the Planning Commission.

RECOMMENDATION

Close the Public Hearing. Approve Use Permit No. UP2004-18 and S-Zone Amendment (SA004-71) based on the Findings and Special Conditions of Approval listed below:

FINDINGS

- 1. As conditioned, the proposed antenna at this location will not be detrimental or injurious to the surrounding development nor to the public health and safety, as reviewed by the Telecommunications Commission Committee in regards to equipment and safety issues.
- 2. As conditioned, the proposed use meets the intent of the General Plan and Zoning Ordinance by providing for alternate telecommunications services for the conduct of commercial and personal business without creating aesthetic disharmony at the site or impacts on surrounding development.
- 3. As conditioned, the project will not result in any significant visual or aesthetic impacts because the proposed antenna and equipment is visually disguised within an existing elevator tower and the associated electronic cabinets are concealed from views.
- 4. The project is categorically exempt from further environmental review pursuant to Class 3, Section 15303 "New construction or conversion of small structures ... installation of small new equipment and facilities in small structures" because the structures are located in an existing equipment facility covering an area less than 1,000 square feet.

SPECIAL CONDITIONS OF APPROVAL

1. This Use Permit No. UP2004-18 and S-Zone Amendment (SA2004-71) is for a telecommunications antenna facility consisting of 12 antennas inside an existing 93-foot tall elevator tower and associated electronic equipment inside an existing building/enclosure as shown on approved plans dated September 22, 2004, except as may be otherwise modified by these conditions of approval. Any future addition of antennas or modification to approved plans, shall

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require further review and approval by the Milpitas Telecommunications Commission and Planning Commission. (P)

- 2. Any change in any dimension or location of the proposed antenna, cabinets, and enclosure from that shown on the plans approved September 22, 2004, shall require an amendment to this Use Permit, which will require a noticed public hearing. (P)
- 3. This use shall be conducted in compliance with all appropriate local, state and federal laws and regulations and in conformance with the approved plans. (P)
- 4. The entire bands of color are to be repainted wherever the new panels are to be located within the elevator tower. (P)
- 5. A placard identifying a telecommunication facility shall be located, and shown on building permit plans, at the fire control point. (TC)
- 6. Prior to issuance of certificate of occupancy, the applicant will provide a license for the facility from the Federal Communication Commission to the Planning Division. (FCC). (P,TC)
- 7. If at the time of application for building permit, there is a project job account balance due to the City for recovery of review fees, review of permits will not be initiated until the balance is paid in full. (P)
- 8. If at the time of application for a certificate of occupancy, there is a project job account balance due to the City for recovery of review fees, occupancy shall not be granted until the balance is paid in full. (P)

(P) = Planning Division(TC) = Telecommunication Commission



MEMORANDUM

Planning & Neighborhood Preservation

DATE: September 17, 2004

TO: Planning Commission

FROM: Troy Fujimoto, Planning Division

SUBJECT: Change of Condition No. 6 for Use Permit No. UP2004-18 – Nextel Antennas at

the Great Mall

This memo is in regards to revised Condition of Approval Number 6. The existing condition is:

Prior to issuance of certificate of occupancy, the applicant will provide a license for the facility from the Federal Communication Commission to the Planning Division. (FCC). (P,TC)

The modified Condition of Approval is proposed to be:

Within six (6) months of issuance of certificate of occupancy, the applicant will provide a license for the facility from the Federal Communication Commission to the Planning Division. (FCC). (P,TC)

The applicant is requesting this change because the FCC will not issue a license for the specific site until the facility is up and running and because the FCC can take between 2 to 6 months to issue the license.



Tetra Tech Communication Services 1255 Treat Blvd. Suite 220 Walnut Creek, CA 94596 Phone (925) 383-1791 Fax (925) 472-3550

July 29, 2004

City Of Milpitas Planning Department 455 E. Calaveras Blvd. Milpitas, CA 95035

Nextel Project # CA-2300- "Great Mall."

Dear Milpitas Planning Department,

My name is Evan J. Shepherd and I am an employee of Tetra Tech Communication Services, who is representing Nextel of California in the aforementioned project. We seek a Use Permit with "S" zone approval to construct and operate an unmanned wireless communication facility at:

1100 S. Main St., Milpitas APN 086-24-055/043/045

I've enclosed the following documents, in accordance with City of San Jose Guidelines:

- Submittal Fee Checks, \$1,000 for CUP and \$250 for "S" Zone deposits.
- Completed City application forms- Planning Application, Environmental Information, Telecommunications questionnaire, Affidavit of Notification and Mailing, Telecommunications Check Sheet.
- Statement of Operations/ Project Synopsis /Supplemental Application Information/Alternative Sites Analysis (35 Copies)
- Thirty five (35) sets Photo-simulations of Proposed site 3 views
- Thirty five (35) copies Non- Ionizing Electromagnetic Radiation (NIER) Study
- Preliminary Title Report and Parcel map for the subject property
- Eight (8) Sets of Plans, Site Plan and Elevations 24" x 36"
- Thirty Five (35) Sets reduced Plans 11" x 17"
- One (1) Set reduced Plans 8 ½ X 11
- Stamped and addressed envelopes with 300' abutter list
- Engineer's build out for Milpitas (35 copies)
- Copy of FCC license (35 copies)

Thank You,

Evan J. Shepherd, MRP Project Manager/Communications Tetra Tech Wireless, Inc. Representing Nextel of California

925-383-1791 mobile cshepherd@ttwireless.com



Supplemental Application Information

(1) Submittal Information

(i) Identity and Legal Status of the Applicant
Nextel of California, Inc.
DBA "Nextel Communications"

(ii) Name Address and Telephone Number

Nextel of California 1255 Treat Boulevard Suite 800 Walnut Creek, CA 94596 925/279-2300

(iii) Name, Address, Telephone # of Authorized Agent

Tetra Tech Communications Services, Inc. 1255 Treat Boulevard, Suite 220 Walnut Creek, CA 94596 Contact Representative: Evan J. Shepherd, MRP 925-383-1791

(iv) Address, Parcel Map Description

1100 S. Main St., Milpitas CA A.P.N. # 086-24-055/043/045

(v) Wireless Services to be provided

Benefits to the Community

Wireless technology can provide many benefits to Milpitas residents. These benefits include:

- Quick access to 911 emergency allowing motorists to summon emergency aid and report dangerous situations.
- 2) Support for emergency services by providing wireless communications access to paramedics, firefighters and law enforcement agencies that utilize this technology
- 3) The ability to transmit data over the airwaves allowing immediate access to information for emergency services
- 4) Communication capabilities in remote areas, enhancing the safety of travelers and residents by allowing immediate access to emergency services.
- 5) Provide quality wireless communication including voice, paging and digital data.
- 6) Enhance the communication services of those residents who conduct business and professional services for Milpitas.

(vi) California Public Utilities Commission

Nextel of California is registered with the CPUC under General Order 159A as:

- 1) Nextel of California
- 2) Nextel Communications Corporation



(vii) Federal Communications Commission

Nextel Communications is registered with the Telecommunications Bureau as:

FCC License # WPOH392

Date of issuance: 06/17/98

*Site- specific FCC licenses are issued as each new site goes on -air.

(viii) FCC Compliance with NIER Standards

Attached please find a radio frequency emissions report. This report is submitted respectively by Hammett & Edison, an independent consultant that examines the safety of cellular installations. NIER levels were found to be well below the established limits for public and occupational exposure for allowable federal levels; 1.1% of maximum public limits at the mall roof.

(ix) Security Considerations

The proposed area of installation is not accessible to the general public, being located on private property. Only authorized technicians will be allowed access to the facility, through permission of the property owner.

Federal Law mandates that all areas, in compliance with FCC guidelines, shall include ANSI compliant RF sign (multi-lingual) in a visible place for workers approaching the site.

(x) Visual Impact Study

Photos (2 views) of the mall sign are attached. There will be no change as the antennas will be mounted behind RF transparent panels that will replace existing sign panels and painted as existing.

Project Synopsis

Nature of Request/ Project Description

Nextel Communications seeks approval of a Use Permit and "S" Zone approval and all related permits to allow the construction of an unmanned communications facility on the mall roof and inside the mall sign. The Nextel plan calls for (12) new panel antennas; 3 sectors, 4 per sector and 2 gps. A Nextel equipment cabinet will be located inside and existing roof top equipment building. The installation is intended to provide coverage for the Great Mall and vicinity.

This site is part of a network, which will allow improved coverage for Nextel Customers in the City of Milpitas. The site is to be an unmanned facility, with periodic access granted to Nextel for monitoring. The site will be operated within all FCC standards, and constructed in compliance with all Federal, State, and County building codes and environmental standards. No public parking will be affected or required for the site, and no drainage patterns will be disturbed. Access to the base station will be gained through permission of the property owner, and will only be gained by authorized Nextel contractors or employees. There are no hazardous materials used in conjunction with this facility.

Property Description



The subject property is located at 1100 S. Main St., Milpitas. The assessor's parcel numbers are: 086-24-055/043/045. The property is a C2 zone. The property is currently used as a retail mall and is surrounded by retail/commercial and industrial properties.

Statement of Operations

The proposed Nextel facility requires only electrical and telephone services, which are available at the site. No nuisances will be created by the proposed installation, the facility will not endanger public safety or health, and the expanded service will benefit the public. Cellular technology does not interfere with any other forms of electronic communication, public or private. Construction of the facility may be done with minimal impact to the surrounding area, and the entire complex is tightly self—contained. Upon completion of the project, periodic maintenance will occur, but the site is to operate as an unmanned facility. Existing parking will be unaffected. The site is self-monitoring, and connects directly to central office computers, which alert personnel to any equipment malfunction or security breach. No on site water or sanitation facilities will be required in this proposal.

Zoning Analysis

Pursuant to The City of Milpitas guidelines, the proposed use is permitted in this Zoning District, subject to approval of a Use Permit and an "S" Zone amendment. The proposal is consistent with the City design, siting, and review guidelines for commercial antenna installation. The proposed project is integrated into the site and setting, and will not present a significant visual impact. The proposal is put forth in the least obtrusive manner possible, and is consistent with approved telecommunication facilities and design requirements set forth by the City of Milpitas.

Regulatory Framework and Compliance

Wireless Telecommunications Services (WTS), including the services provided by Nextel Communications at this proposed telecommunications facility, are regulated at the Federal, State, and local levels. Nextel Communications' installations comply fully with all Federal Communications Commission (FCC) guidelines, governing construction requirements, technical standards, interference protection, power level and height restrictions, and radio frequency regulations. Additionally, the proposed facility will comply with all Federal Aviation Administration (FAA) standards on cellular base station operations. All NEPA, and SHPO requirements are adhered to as well. This proposal is CEQA exempt under Section 15301 (Existing Facilities)

Federal Level

The Federal Communications Commission (FCC) is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. The Wireless Telecommunications Bureau (WTB) handles all FCC domestic wireless telecommunications programs and policies, except those involving satellite communications. The WTB regulates wireless telecommunications providers and licenses and serves as the FCC's principal policy and administrative resource with regard to Federal auctions for the private use of public airwaves. Portions of the frequency spectrum are allocated to specific uses (such as TV broadcast or cellular) and specific frequencies within that part of the spectrum are assigned to licensed operators such as Nextel.

In 1993, Congress revised the 1934 Communications Act to refine Federal regulatory policy governing commercial mobile radio services (CMRS), such as cellular companies, to ensure development of an efficient, federally regulated, and competitive market. In 1996, Congress passed the Federal Telecommunications Act to further deregulate the industry in order to promote the availability of competing and affordable services. Section 704 of the 1996 Act, entitled "National Wireless Telecommunications Siting Policy", preserves control over the siting process for local jurisdictions, but sets forth certain important limitations. According to Section 704, State and local governments cannot unreasonably discriminate among providers of various services and they cannot take action that prohibits or has the effect of prohibiting the provision of wireless services. State and local governments must also act on siting requests within a reasonable period of time, taking all relevant factors into consideration. Determinations to deny wireless facilities must be in writing and supported by substantial evidence.

The 1996 Act prohibits State and local governments from denying siting on the basis of Radio Frequency Radiation (RFR) emissions so long as such facilities comply with the FCC's regulations concerning such emissions. The FCC



requires all transmitting facilities that it licenses to comply with the American National Standards Institute (ANSI) Standards for human exposure to RFR electromagnetic fields.

State Level

Although the Federal government controls the sale and use of the airwaves, States retain jurisdiction over facility siting issues. The California Public Utility Commission (CPUC) has jurisdiction over the provision of many utility services, including wireless telephone service. The CPUC has broad powers to regulate safety and standards of service.

In 1996, the CPUC adopted General Order No. 159A, which provides rules relating to the construction of commercial mobile radio service facilities in California. General Order No. 159A provides for deference to local governments during the evaluation of cellular service project siting by acknowledging that local citizens and local governments are often in a better position than the CPUC to measure local impacts and identify suitable sites. The CPUC did, however, retain its right to preempt a local government determination under the California Constitution on siting when there is a clear conflict with CPUC goals and/or statewide interests. In those instances, the cellular service provider has the burden of demonstrating that accommodating City requirements for a specific site would unduly frustrate the CPUC's goals or statewide interests.

This type of project qualifies as a categorical exemption under Section 15301 (Existing Facilities) of the California Environmental Quality Act (CEQA).

Local Level

The City Zoning Ordinance describes the purpose and applicable regulations of the M2/S Zone. A Conditional Use Permit is required for a communications facility in this zone. As designed, this project meets zoning requirements as:

- 1. There is no height limit in this district.
- 2. Antennas and equipment are fully screened from view from adjacent parcels by the existing sign and rooftop equipment room.
- 3. Facility falls far below FCC RF maximum exposure guidelines; 1.1% of maximum public limits at the mall roof.

Alternative Site Analysis

This site was selected for very specific reasons: 1) The view of the intended coverage area, 2) The proposed installation integrates well with the existing structure, and 3) the design of the proposal integrates well with the current zoning standards and wireless policies for the City of Milpitas. Our goal in determining this site as one for our proposal is based on minimizing impacts, visual and others, and to adhere as closely as possible to the zoning standards set forth by the jurisdiction regarding cellular base stations.

The area surrounding the subject parcel contains 1 other wireless facility within approximately 1000 feet.

No other reasonable candidates exist within the search area, and to create a new facility on another parcel would mean closer encroachment to residential areas, greater visual impacts to the community, and a more intrusive construction process. The favorable zoning and approved location of this facility make it the ideal candidate for Nextel to provide improved service to this area.

Alternative sites investigated were:

- 1. VTA Station: Possible extension of new facility.
- 2. Nearby Verizon and ATT wireless monopole- Interference issues with other carriers would require additional 20' in height. City was not supportive during preliminary investigation.

Amendment

The applicant agrees to notify within 30 days, any change of information required and submitted as part of this application.



Technical Review

An independent technical expert, at the direction of the City of Milpitas and notification by, may review any technical materials submitted with this application.

Fees

Checks in the amount of \$1,000 and \$250 as deposits for Use Permit and "S" zone reviews are attached as payment for processing the application submitted on behalf of Nextel of California. Tetra Tech Communications will assume responsibility for all Planning and Building permit fees associated with this proposal.

Thank you for your review of this project for Nextel Communications. If you have any questions or require additional information, please call me at 925-383-1791.

Respectfully,

Evan J/Shepherd, MRP

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4.	What wil	Il be the effective radiated power (ERP) be when all channels at your proposed site are radiating? Will the site be in compliance with current ANSI radiation health IS? YES- SEE REPORT BY HAYMWETT + ENSON
	standard	is? YES- SEE ICEPORT (3) ADMINISTRATE
5. 🔪	What ho	orizontal radiation pattern is planned for this project?
		Omnidirectional Sectored
		Directional (provide hall power beam width)
6.		rill the vertical radiation angle (half power beam width) be for your proposed antenna(s)?
7.		gh above the local terrain (e.g., surrounding structures) will the center of radiation of your proposed a(s) be?feet
8.	How cle	ose to your proposed project is the nearest roadway 7100 feet/miles and, if elevated, the roadway's height above the local terrain? NA feet
9.	How cl	lose to your proposed project is the nearest regularly occupied building and how high is the top bove local terrain?
10.	What i mile?	is the distance to the nearest existing radio communications or broadcast antenna(s) if less than ½ UNKNOWN feet/miles. Answer question 1 for such existing antenna(s) and identify foperator, if known.
11.	What (Includ	is the status of your FCC license grant? ACTIVE CURROUT - SEE ATTRICTOR of the license with submittal of this questionnaire.)
NO	ΓΕ: -The	below listed items are required by the applicant as part of this submittal: - ALL ATTACHED
-	a)	Provider's build-out map* showing all sites anticipated within Milpitas (see question v
	b)	Photo simulations** of antenna(s) as viewed from at least three surrounding view points. Show "worst case" vantage points.
	с)	List of all sites that were investigated** for a particular search ring and the reasons why they were discarded. Include names and phone numbers of persons contacted regarding potential sites.
	d)	Copy of applicants Power Density Study* (see item no. 4).
	## #	20 copies (Telecommunication Commission) 35 copies (Telecommunication Commission & Planning Commission)
		<u>.</u>

Back of Telecommunication Questionnaire

City of Milpitas

Planning Division 455 E. Calaveras Blvd. Milpitas, CA 95035 (408) 586-3279

Questionnaire for Telecommunication Facility Providers

All applicants requesting to install telecommunications facilities within the City of Milpitas must complete this questionnaire as part of their use permit application submittal.

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Applica	nt Name:	EYAN SHEPHERD; TETRATECH FOR NEXTEL OF CALIFORNIA, IVAC
Applica	int Addres	SS: 1255 TREAT BLUD, STE 220 WALNUT CREEK, CA 94596
Annlina	of Dhone	: 925-383-1791
Applica	III FIONS	advedredo Thurseless com
Applica	ant Fax a	nd e-mail address: (F) 925-472-3550 eswepherde TTWI reless com
MON	ntect	description of project (Telecommunications Facility): TWENE 41 ANTENNA PANELS WINDE SIEN @ GREAT MALL - METAL SIEN PANELS TO BE REPLACED TRANSPARENT, PAINT AS EXISTING - EQUIP INSTREED UTILITY BIDEON PROF.
Location		ect: 1100 S. MAIN ST, MILPITAS
1.	Please	indicate below the frequency range you plan to use?
	□ □ ½ □	VHF Low-Band (30-50 Mhz or 72-76 Mhz) VHF High-Band (136-174 Mhz or 220-222 Mhz) UHF or T-Band (406-420 Mhz or 450-470 Mhz or 470-512 Mhz) 800 or 900 Mhz Band (800-960 except 900 Mhz Spread Spectrum) 900 Mhz Spread Spectrum (902-928 Mhz) Other than specified above (State frequency band in Mhz). Describe:
2.	Pleas€	indicate below the channel/system proposed for use?
	14.	A single channel Multiple channel A frequency agile system A spread spectrum system Other than specified above. Describe:
3.	Pleas	e indicate below the frequency range you plan to use?
		Narrow band (±5 Khz or less deviation) Broad band (greater than ±5 Khz deviation) Spread Spectrum Other than specified above. Describe:

Nextel SMR • Proposed Base Station (Site No. CA-2300) 1100 South Main Street • Milpitas, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Nextel SMR, a wireless telecommunications carrier, to evaluate the base station (Site No. CA-2300) proposed to be located at 1100 South Main Street in Milpitas, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent Institute of Electrical and Electronics Engineers ("IEEE") Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes nearly identical exposure limits. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

The most restrictive thresholds for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Personal Wireless Service	Approx. Frequency	Occupational Limit	Public Limit
Personal Communication ("PCS")	1,950 MHz	$5.00 \mathrm{mW/cm^2}$	$1.00 \mathrm{mW/cm^2}$
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30-300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "cabinets") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables about 1 inch thick. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the

Nextel SMR • Proposed Base Station (Site No. CA-2300) 1100 South Main Street • Milpitas, California

horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Nextel, including zoning drawings by Advanced Design Consultants, dated June 23, 2004, it is proposed to mount twelve RFS directional antennas within an existing 100-foot Great Mall sign located above the roof of the mall at 1100 South Main Street in Milpitas. The antennas would be mounted at an effective height of about 78 feet above ground, 56 feet above the roof, with eight Model ALE 866513 antennas oriented in two groups of four toward 50°T and 310°T and four Model ALE 859012 antennas oriented toward 150°T. The maximum effective radiated power in any direction would be 1,000 watts. There are reported no other wireless telecommunications base stations installed nearby.

Study Results

The maximum ambient RF level for a person anywhere at ground due to the proposed Nextel operation is calculated to be 0.0029 mW/cm², which is 0.51% of the applicable public exposure limit. The maximum calculated level on the roof of the mall building is 1.1% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density level.

Recommended Mitigation Measures

Since they are to be mounted on a tall sign, the Nextel antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 5 feet in front of the Nextel antennas themselves, such as might occur during maintenance activities on the sign, should be allowed while the site is in operation, unless other measures can be demonstrated to ensure that



Nextel SMR • Proposed Base Station (Site No. CA-2300) 1100 South Main Street • Milpitas, California

occupational protection requirements are met. Posting explanatory warning signs* at sign access locations and in front of or below each transmitting antenna, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

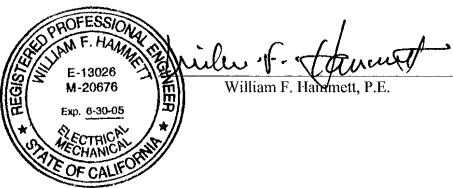
Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the base station proposed by Nextel SMR at 1100 South Main Street in Milpitas, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2005. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

July 28, 2004



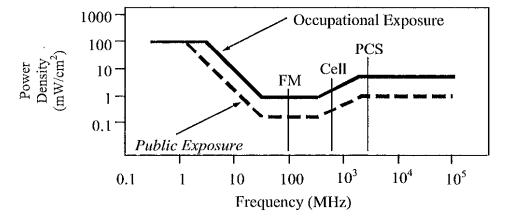
Warning signs should comply with ANSI C95.2 color, symbol, and content conventions. In addition, contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	_Electro	magnetic F	<u>ields (f is fr</u>	equency of	emission in	MHz)
Applicable Range (MHz)	Field S	etric trength /m)	Field S	netic trength /m)	Power 1	t Far-Field Density /cm²)
0.3 - 1.34	614	614	1.63	1.63	100	100
1.34 - 3.0	614	823.8/f	1.63	2.19/f	100	$180/f^{2}$
3.0 - 30	1842/ ſ	823.8/f	4.89/ f	2.19/f	$900/ f^2$	$180/f^{2}$
30 - 300	61.4	27.5	0.163	0.0729	1.0	0.2
300 - 1,500	3.54 √ f	1.59√j	√f/106	√f/238	f/300	f/1500
1,500 - 100,000	137	61.4	0.364	0.163	5.0	1.0



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC[™] Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications cell sites. The near field zone is defined by the distance, D, from an antenna beyond which the manufacturer's published, far field antenna patterns will be fully formed; the near field may exist for increasing D until some or all of three conditions have been met:

1)
$$D > \frac{2h^2}{\lambda}$$
 2) $D > 5h$ 3) $D > 1.6\lambda$

where h = aperture height of the antenna, in meters, and $\lambda = aperture$ wavelength of the transmitted signal, in meters.

The FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives this formula for calculating power density in the near field zone about an individual RF source:

power density
$$S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$$
, in mW/cm²,

where $\theta_{BW} = \text{half-power beamwidth of antenna, in degrees, and}$ $P_{net} = \text{net power input to the antenna, in watts.}$

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates distances to FCC public and occupational limits.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density
$$S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$$
, in mW/cm²,

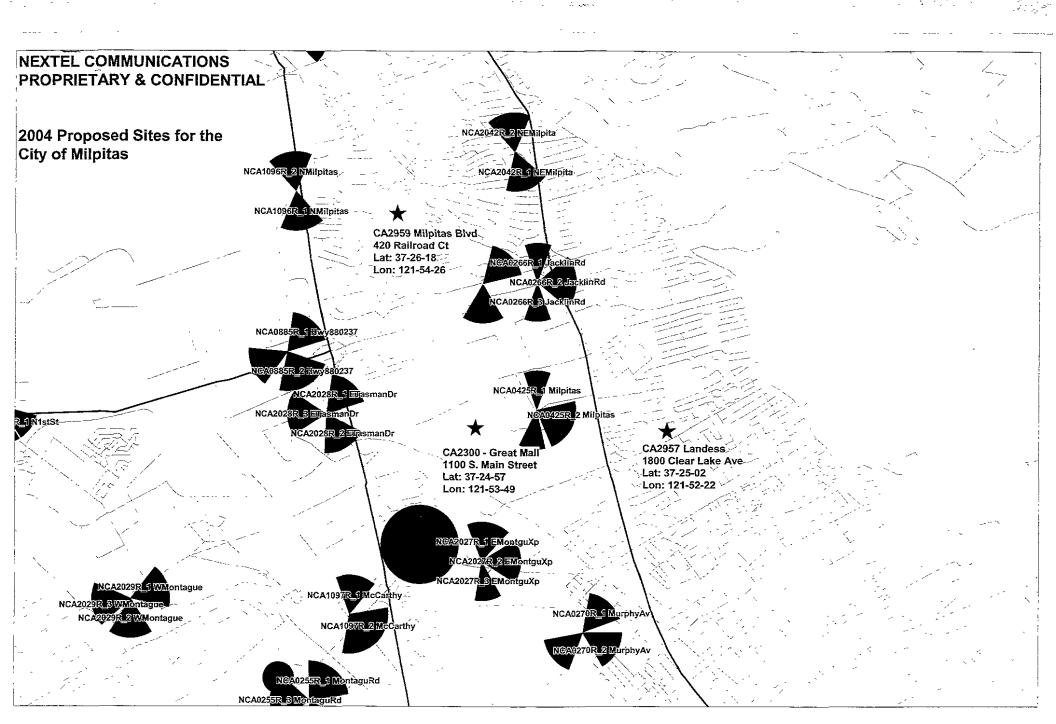
where ERP = total ERP (all polarizations), in kilowatts,

RFF = relative field factor at the direction to the actual point of calculation, and

D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 ($1.6 \times 1.6 = 2.56$). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.





**** REFERENCE COPY - THIS IS NOT A LICENSE ****

Call Sign: WPOH392	File Number:	Print Date:
Name of Licensee: NEXTE	L OF CALIFORNIA INC	
Attention:		
2001 EDMUND HALLEY DRIV	E	
RESTON VA	20191	
Market Number:	Channel Block:	Sub-Market Designator:
BEA163	A A	0
Market Name: San Francis	co-Oakland-San Jose	
and conditions hereinafter desc	d, for the period indicated, to operate a radio tran cribed. This authorization is subject to the provisi	ons of the Communications Act of 1934, as

The license hereof is authorized, for the period indicated, to operate a radio transmitting station in accordance with the terms and conditions hereinafter described. This authorization is subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts of Congress, international treaties and agreements which the United States is a signatory, and all pertinent rules and regulations of the Federal Communications Commission, contained in Title 47 of the code of Federal Regulations.

Effective Date	1st Build-Out Date	2nd Build-Out Date	3rd Build-Out Date	4th Build-Out Date	Expiration Date
06/17/1998	06/17/2001	06/17/2003			06/17/2008
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**** REFERENCE COPY - THIS IS NOT A LICENSE ****

Call Sign: WPO	H393	File Nu	umber:		Print Date:		
Name of License	e: NEXTEL C	OF CALIF	FORNIA INC				
Attention:							
2001 EDMUND H	ALLEY DRIVE						
RESTON	VA	20191					
Market Number:		Channel Block:			Sub-Market Designator:		
BEA16	3		B·	,	0		
Market Name:	San Francisco	-Oakland	d-San Jose				
and conditions her amended, subsequ	einafter describ Jent Acts of Co	oed, This ngress, ir	eriod indicated, to oper s authorization is subje nternational treaties ar rral Communications C	ct to the provisions on ad agreements which	f the Communications the United States is a	Act of 1934, as signatory, and all	
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**** REFERENCE COPY - THIS IS NOT A LICENSE ****

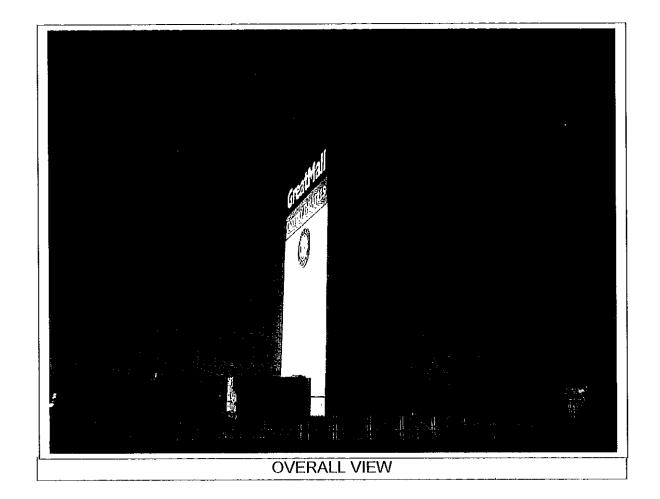
Call Sign: WPOH3	94 File N	lumber:		Print Date:	
Name of Licensee:	NEXTEL OF CALI	FORNIA INC			
Attention:					
2001 EDMUND HALL	.EY DRIVE				
RESTON	VA 20191				
Market Numb	er:	Channel Bloo	sk:	Sub-Market Designator:	
BEA163		C		0	
Market Name: Sa	an Francisco-Oaklan	d-San Jose			
and conditions herein amended, subsequen	after described. Thi nt Acts of Congress,	eriod indicated, to oper s authorization is subje international treaties ar eral Communications C	ct.to the provisions of nd agreements which	the Communications the United States is a	Act of 1934, as signatory, and all
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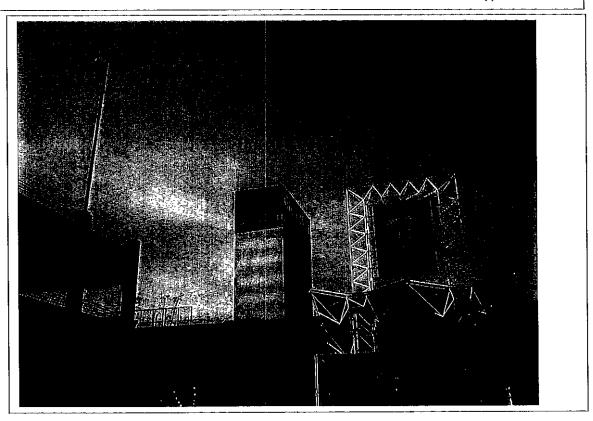
Call Sign: WPQ2	Z885 File 1	Number:		Print Date:	
Name of Licensee	: NEXTEL OF CAL	IFORNIA, INC. DBA NE	XTEL COMMUNICAT	TONS	·
Attention:					
2001 EDMUND HA	LLEY DRIVE				
RESTON	VA 20191				
Market Number: Channel Block: Sub-Market Desi			Designator:		
BEA163	3	D		0	
Market Name:	San Francisco-Oaklar	nd-San Jose		١	
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Effective Date 12/20/2000	1st Build-Out Date 12/20/2003	2nd Build-Out Date 12/20/2005	3rd Build-Out Date	4th Build-Out Date	Expiration Date 12/20/2010

**** REFERENCE COPY - THIS IS NOT A LICENSE ****

Call Sign: WPR	Q625 File I	Number:		Print Date:	
Name of License	e: NEXTEL OF CAL	IFORNIA, INC. DBA NE	EXTEL COMMUNICAT	TIONS	
Attention:			•		
2001 EDMUND H					
RESTON	VA 20191				
Market Nur	mber:	Channel Bloc	sk;	Sub-Market Designator:	
BEA16	3	, F		0	
Market Name:	San Francisco-Oaklar	nd-San Jose			
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Site #: CA-2300 Candidate Name: Great Mall Sign



VIEW FROM PARKING LOT

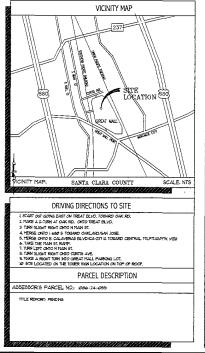
Nextel of California, Inc.

dba **NEXTEL** Communications

SPECIALIZED MOBILE RADIO FACILITY

APPROVED BY APPROVAL SIGNATURE D'ATE LADLORD. RE BYGINEER LEASING PYGR LEASING PYGR CONSTRUCTION PYGR REG PROJECT PYGR EGUIPHENT PYGR EGUIPHENT PYGR

SITE NAME: GREAT MALL SITE NUMBER: CA-2300D



	PROJECT DATA	
SITE ADDRESS. 1000 S. MAN STREET MILPITAS, CA. 95095	SITE NAME: SITE NUMBER	GREAT MALL CA-23000
SANTA CLARA COUNTY BUILDING DATA: JURSDICTION ZONING DESIGNATION APN.	CITY OF MILETIAS C7-COYERCIAL 2/86-24-2/55	
OCCUPANCY: TYPE OF CONST.; TOTAL LEASE AREA;	ROOF TOP #86-24-#55 TE' SQ.FT	
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PROJECT TEAM	
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	SHEET INDEX SHEET DESCRIPTION T-1 TITLE SHEET		
HEET	DESCRIPTION		
T-I	TITLE SHEET		
C+I	SITE SURVEY AND GENERAL NOTES		
C-1 C-2	SITE SURVEY AND LEGAL DESCRIPTION		
A-I	OVERALL SITE PLAN 4 SIGN TOWER PLOOR PLAN		
A-2	SITE ELEVATIONS		
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ADC ADBAHCED DESIGN ECHSULTANTS Ranning Eingibering Services

Ransing Engineering Services 1755 W Hammer Ln, Sto. 12 Stockton, CA. 95209-2900 Ph. 209-478-4691 Fax: 209-478-4691 A DIVISION OF THE MIKA TELECOM GROUP, INC

Nextel of California, Inc. dba **NEXTEL** Communications 1255 TREAT BLVD. #800 WALNUT CREEK, CA. 94596 PHONE (925)279-2300

GREAT MALL CA-2300D 1100 S. MAIN STREET MILPITAS, CA. 95035 SANTA CLARA COUNTY

FAX (925)279-2683

CURRENT ISSUE DATE:
6.23.04
ISSUED FOR:
90% ZONING

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CHECKED BY		SAL MRTZ JR	
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1st SUBMITTAL: .

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